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(12) United States Patent

(54) ULTRASONIC BRACELET AND RECEIVER FOR DETECTING POSITION IN 2D PLANE

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(58) Field of Classification Search

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(57) ABSTRACT

Ultrasonic tracking of a worker's hands may be used to monitor performance of assigned tasks. An inventory system includes inventory bins configured to store inventory items, an ultrasonic unit, ultrasonic transducers, and a management module. The ultrasonic unit is configured to be worn by a user in proximity to the user's hand and to periodically emit ultrasonic sound pulses. The ultrasonic transducers are arranged relative to the inventory bins and configured to receive the emitted pulses. The management module is operatively coupled with the ultrasonic transducers and configured to process signals generated by the ultrasonic transducers to identify an inventory bin based on proximity of the ultrasonic unit relative to the identified inventory bin. The management module monitors performance of an assigned task based on the identified inventory bin.

18 Claims, 13 Drawing Sheets

